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Idiom Comprehension in English as a Foreign Language: Analysability in Focus

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Abstract

This study aims to test if analyzability matters in processing the idioms of a language with which participants are not familiar. To this end, a group of Persian undergraduate students received 90 English idioms literary translated into Persian from three categories of normally analyzable, abnormally analyzable, and unanalyzable. They were asked to assign each idiom presented on the screen to one of the three semantic domains of anger, revelation, or secrecy. According to the speed and accuracy with which participants assigned each idiom, it was revealed that analyzability plays an important role in understanding the idioms of an unfamiliar language.

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Keywords: analyzability; figurative language; idiom comprehension

1. Introduction

Idioms are phrases whose meaning is something different from the literal interpretation of their individual words. For example, when the phrase 'not to breathe a word' is interpreted in English language, it means to keep a secret; it does not mean not to inspire. There have been many models trying to portray how people understand idioms. One possibility is that metaphorical structures help people understand idioms according to previous experience (e.g., Gibbs, 1992; Lakoff, 1987, 1990). A more recent view for understanding idiomatic phrases considers idioms in terms of analyzability, so that they can be divided into three categories of analyzable, abnormally analyzable, and unanalyzable. According to this view, there is a clear relationship between the surface structure and the figurative meaning of analyzable idioms, so that they can be comprehended with little analysis (e.g., to get on someone's nerves). The relationship gradually fades between the literal and figurative meaning of abnormally analyzable

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idioms, so that understanding such phrases requires more analysis compared with analyzable ones (e.g., to be up in arms). Idiom comprehension becomes even more of a challenge when there is a vague or even no relationship between the surface structure and figurative meaning of an idiom (e.g., to go spare). For these unanalyzable idioms, a lot of analysis is required for the phrase to be understood by the listener. In an attempt to test this issue across languages, Bortfeld (2003) made speakers of three different languages rate sets of idioms from their language and the language they were unfamiliar with for the analyzability of the relationship between idiom's literal and figurative meaning and came to the conclusion that there exists a continuum of analyzability in both familiar and unfamiliar languages. Since metaphors and idioms are considered the foundation for much of figurative language, the debate regarding the nature of idiom representation, access, and storage is worth considering. In other words, understanding different interpretations of idioms literary translated from an unfamiliar language which is the main focus of the present study, can lead to consciousness-raising as to how various sorts of idioms taken from other languages are processed in the mind.

2. Methodology

2.1. Objectives and hypotheses of the research

The present research is quantitative, statistic, and experimental. Its purpose is investigating if language speakers process figurative meaning of idioms in terms of analyzability in a language they know nothing about.

Hypothesis 1: Analyzability of idioms is a matter of degree in an unfamiliar language.

Hypothesis 2: Processing times of idioms in an unfamiliar language depend upon their analyzability.

2.2. Study sample

The study sample consisted of 30 undergraduate students studying Persian literature at Islamic Azad University of Najafabad, Isfahan, Iran. There was almost an equal number of male and female participants within the age range of 20 to 25. All were native speakers of Farsi, and their knowledge of English was limited to general courses studied in high school and university. Furthermore, they never had exposure to English in natural settings.

2.3. Instruments

The main instruments used for the collection of data were 90 English idioms selected from English idiom dictionaries, an instruction booklet, and a software program called idiom analyzer. Idioms selected from reliable English dictionaries were divided into three semantic domains of anger, secrecy, and revelation. Two native speakers of English were asked to classify the idioms in each group into three categories in terms of analyzability. The categories were normally analyzable, abnormally analyzable, and unanalyzable. Following the aforementioned steps, the selected English idioms were literally translated into Persian language by the researcher and were then sent to two Persian speaking English professors to check the one to one relationship between words used in the original idioms and their Persian equivalents to make certain if the idioms had been literally translated to Persian correctly. The relationships between the individual words of the idioms and their literal translations were discussed, and idioms, which shared the same opinions in terms of literal translation, were finally selected for the experiment. A computer expert was asked to develop a software program called idiom analyzer for the experiment, which captured the information already entered into a file, then took the target test and alternatively transferred the newly attained information into a different folder. The program presented the literary translated English idioms individually and separately in random order on the computer screen. As soon as a participant identified which concept group a certain idiom belonged to by pressing the relevant number, the next idiom came up on the screen automatically and the process went on until all the idioms were identified. When there were no idioms left unidentified, the software closed the program and created a folder simultaneously for each participant. Eventually there were 30 folders. Each folder kept a personal profile of the performance of each participant including accuracy, reaction times, the concept group to which each participant allocated a certain idiom, and the original concept group that idiom belonged to. Thus, what each participant had done during the experiment could easily be observed.

2.4. Procedure

Participants were presented with idioms that were normally analyzable, abnormally analyzable, or unanalyzable. Their task was reading each visually presented idiom and deciding which meaning category it belonged to. The idioms belonged in equal parts to the meaning categories revelation, secrecy, and anger. Phrases were already selected based upon the analyzability ratings of independent judges, such that a third of the phrases' figurative and literal meanings had a clear relationship (normally analyzable idioms); another third had an indirect relationship (abnormally analyzable idioms), and the final third had an ambiguous or vague relationship (unanalyzable idioms). Each participant completed the categorization task individually. Idioms were presented on a computer screen one at a time in a different random order for each participant. For the ease of answering button numbers 1, 2, and 3 of the keyboard were selected. The full name of each category (anger, secrecy, and revelation) was located at the bottom of the screen in Persian accompanied with its allocated number, so that the match between each key and its corresponding category was made clear. Participants were asked to press a key for each idiom, according to which concept group they felt best represented that idiom's figurative meaning. Before the main experiment, each participant went through a trial to learn exactly what they were required to do and got used to the place of the keyboard buttons and to the category each button represented. Participants took approximately 15 minutes to complete the experiment. Response latencies were measured from the onset of the word string to the time at which participants pressed one of the three buttons. Finally, the speed and accuracy with which native Persian speakers were able to categorize idioms literary translated from English were measured.

3. Obtained outcomes

In this part, a comprehensive description of the data collected in this study and their analysis are presented. Within-Subject factor is idiom type (i.e., analyzable, abnormally analyzable, and unanalyzable) for the three idiom domains of anger, secrecy, and revelation. Kolmogorov-Smirnov Test was used to show the normal distribution of the data.

Table 1. The Results of Kolmogorov-Smirnov Normality Test on English idioms

	Kolmogorov-Smirnov[b]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Analyzable	.155	30	.064	.962	30	.339
Abnormally analyzable	.112	30	.200*	.957	30	.266
Unanalyzable	.137	30	.159	.952	30	.195

Table 1 shows the results of test on English analyzable, abnormally analyzable, and unanalyzables idioms respectively. As the results of Kolmogorov-Smirnov Test show, the distribution of each variable for English idioms is normal and parametric tests can be used to analyze the data.

Table 2. Descriptive statistics of English idioms in terms of analyzability

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
					Lower Bound	Upper Bound		
analyzable	30	25.3000	2.16795	.39581	24.4905	26.1095	20.00	29.00
abnormally analyzable	30	24.1667	2.69205	.49150	23.1614	25.1719	19.00	29.00
unanalyzable	30	21.3000	3.30256	.60296	20.0668	22.5332	16.00	29.00
Total	90	23.5889	3.21127	.33850	22.9163	24.2615	16.00	29.00

As seen in table 2, the mean score for analyzable idioms is higher than that for abnormally analyzable idioms, and in turn for unanalyzable ones indicating that accuracy is higher in categorizing analyzable idioms than

abnormally analyzable and unanalyzable ones. Unanalyzable idioms have the lowest mean indicating the least accuracy in categorization. In order to see if the differences between the mean scores are significant, a one way ANOVA was run. Table 3 shows the results of the test of homogeneity of variance.

Table 3. Test of homogeneity of variances on English idioms

Levene Statistic	df1	df2	Sig.
1.875	2	87	.160

As shown in the above table, the spread of scores in English idioms is roughly similar. Since the test result shows a significance value more than .05, we can confirm that homogeneity of variance exists for English idiom scores. In order to see which mean scores were significantly different, post hoc tests were also run. Table 4 shows the results.

Table 4. Multiple comparisons through post hoc tests on English idioms

(I) type	(J) type	Mean Difference (I-J)	Std. Error	Sig.	99% Confidence Interval Lower Bound	Upper Bound
Analyzable	Abnormally-analyzable	1.13333	.71265	.288	-1.0880	3.3546
	Unanalyzable	4.00000*	.71265	.000	1.7787	6.2213
Abnormally analyzable	Analyzable	-1.13333	.71265	.288	-3.3546	1.0880
	Unanalyzable	2.86667*	.71265	.001	.6454	5.0880
Unanalyzable	Analyzable	-4.00000*	.71265	.000	-6.2213	-1.7787
	Abnormally-analyzable	-2.86667*	.71265	.001	-5.0880	-.6454

Table 4 shows multiple comparisons between the three groups of idioms. Our dependent variable is idioms. As shown, there is a significant difference between the mean scores of analyzable, abnormally analyzable, and unanalyzable idioms in terms of accuracy. In fact, unanalyzable idioms were judged less accurately than analyzable and abnormally analyzable idioms. No significant difference is observed between analyzable and abnormally analyzable idioms.

4. Reaction times

Reaction time refers to the amount of time each idiom took for categorization by each participant. For the ease of the readers, the term (RT) will be used in the rest of the paper to refer to reaction time. The obtained data indicated a main effect for idiom type, Wilks Lambda = .33, $F(2, 57) = 56.8$, $p = .0001$, partial eta squared = .66, meaning that categorizing English unanalyzable idioms took longer than analyzable and abnormally analyzable ones. No significant difference is observed in processing times for categorizing English analyzable and abnormally analyzable idioms.

5. Discussion and conclusion

The purpose of this study was to find out if analyzability plays an important role in the way people understand idioms from a language other than their native language. Towards this end, within subjects analysis of variance and a series of one way ANOVAs and post hoc tests were performed to analyze the data. The results of the study showed that unanalyzable idioms were judged less accurately and slower than abnormally analyzable and unanalyzable idioms. No significant difference was observed in categorizing analyzable and abnormally analyzable idioms in terms of accuracy and RTs. The first research hypothesis stated that analyzability of idioms is a matter of degree in an unfamiliar language. According to what the results show, analyzability is sure to be matter of degree in categorizing the idioms of an unfamiliar language. In fact, unanalyzable idioms were judged less accurately than abnormally analyzable ones, and in turn than analyzable ones in an unfamiliar language. This is also consistent with the earlier findings of Gibbs, Nayak, and Cutting (1989). Unanalyzable idioms imposed the greatest challenge on the participants to categorize. Analyzable and abnormally analyzable ones were of less challenge. Thus, the first

research hypothesis makes sense. The second research hypothesis posited that processing times of idioms in an unfamiliar language depend upon their analyzability. Based upon the results, there is a direct relationship between the processing times of idioms and their analyzability. Unanalyzable idioms took longer to categorize than abnormally analyzable and unanalyzable ones. In other words, RTs for analyzable and abnormally analyzable idioms of an unfamiliar language were less than those for unanalyzable ones. The relationship between analyzability and RTs still stands solidly and therefore, the second research hypothesis also makes sense. These results are in line with what Bortfeld (2003) found in her study related to the analyzability of idioms. The findings of this study arrived at interesting results which support what some researchers formerly found. (e.g., Nunberg, Sag, and Wasow 1994; Gibbs, Nayak, and Cutting's, 1989; Bortfeld 2003). The results showed that there is a direct relationship between analyzability of idioms and the way people apprehend them in a language which seems strange to them. Contrary to unanalyzable idioms, analyzable and abnormally analyzable idioms were judged easier with shorter RTs which add evidence to the analyzability of idioms as a sufficient criterion for comprehending idioms in an unfamiliar language. As mentioned earlier, unanalyzable idioms associate with some cultural and historical points whose surface meanings have long been forgotten, yet, their figurative meanings have passed across generations over time. Therefore, it is more challenging for people to process them.

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